

Management of the 2003 Columbia River Non-Indian Commercial Spring Chinook Fishery

Run Size Forecasts	
Upriver spring chinook	145,400
Snake River wild spring chinook	25,000
Upper Columbia wild spring chinook	1,300
Willamette spring chinook *	109,800
Willamette wilds (10%)	11,000
Cowlitz, Kalama, Lewis spring chinook	11,600
Sandy spring chinook	4,800
Total spring chinook	271,600
Wild winter steelhead	15,500

* Includes 89,200 age-5 fish.

Allowable Impacts – Harvest Constraints

- ❖ 17,500 Willamette hatchery spring chinook allocation.
- ❖ Total impacts to wild Willamette spring chinook not to exceed 15% for all freshwater sport and commercial fisheries.
 - The commercial fishery will be managed to <5% impact on wild Willamette spring chinook.
- ❖ Less than 0.59% impact on listed upriver spring chinook.
- ❖ Less than 2% impact on wild winter steelhead. The fishery will be managed for a range of 1.6% to 1.8% as a buffer against unforeseen circumstances. Equates to about 250-280 wild winter steelhead mortalities.
- ❖ Fishery will be managed to stay within all guidelines and will close if any guideline is expected to be reached.
- ❖ See “Joint Staff Report” dated January 23, 2003, for more detail.

Structure of Fishery

- ❖ As was the case in 2002, short soak times (45 minutes), short nets (150 fathoms), and the use of the recovery box on lethargic and bleeding fish are required.
- ❖ Fishery began February 17 with large mesh (8-inch minimum). Large mesh will reduce steelhead handle and target Willamette hatchery spring chinook. Large mesh could be considered for the entire fishery.
 - The large mesh fishery is open M, W, F, and closed Tu, Th, and weekends. This allows staff to analyze previous days’ information and track landings and impacts.
 - The fishery will occur primarily in daylight hours to aid monitoring and enforcement.
- ❖ Tangle net mesh (4 ¼ inch maximum) will likely not be used prior to March 1 and may not be used for the entire fishery. The use of 4¼ inch mesh will be considered based on the proportion of upriver fish in the total catch. Use of steelhead excluder nets is optional.
 - The excluder panel is defined as being a minimum of 5 feet in depth and the mesh size is ≥ 12 inches. Fishers may use an additional 25 fathoms of 4¼ inch mesh if an excluder panel is used for a total net length of 175 fathoms.
- ❖ Fishery could occur through mid-March to target early returning Willamette fish.

- ❖ Wild steelhead abundance is expected to peak during March 12-25. Days open per week should be reduced (1-2 days/week) during this period to avoid steelhead handle. Steelhead abundance is expected to decline after March 25.
- ❖ Early April fishing may be required to help achieve commercial allocation of hatchery spring chinook.
- ❖ Initial season was adopted at the February 6, 2003 Compact hearing. An inseason hearing is scheduled for 10 a.m. March 4, at the ODFW headquarters to review the large-mesh fishery and consider further fishing options.
- ❖ See “Joint Staff Winter Fact Sheet No. 2”, and “Columbia River Action Notice” both dated February 6, 2003, for more detail.

Expected Mark Rates

- ❖ Willamette hatchery mark rate expected to be about 85%. The upriver mark rate is expected to be about 50%. Mark rate for spring chinook is expected to be greater than 70% through the first half of March.
- ❖ The steelhead mark rate is projected to be the same as in 2002 (41%) throughout the fishery.

Mortality Rates (TAC Recommendations)

- ❖ Long-term mortality rate factors for 8-inch mesh gear are 50% for chinook and 35% for steelhead. Rationale: Gear will catch salmon by the gills or body and will catch steelhead by the body.
- ❖ Long-term mortality rate factors for 4¼ inch mesh gear are 25% for chinook and 20% for steelhead. Rationale: The majority of chinook and steelhead will be tangled in this mesh size.
- ❖ These rates will be applied to the estimated number of wild chinook and steelhead handled in the fishery.

Monitoring Program

- ❖ All data will be summarized the day following each fishing period and reported to the fishery managers and TAC.

On-board Observations

- ❖ The monitoring program has been improved from that conducted in 2002. Details can be found in the “Winter/Spring 2003 Selective Fishery Monitoring Plan.” A total of 16 monitors are employed to observe the fishery each day.
- ❖ The monitors will be on board the commercial boats and collect a variety of data, including numbers of steelhead and spring chinook handled, mark rates, condition at capture, and condition at release.

Catch Sampling

- ❖ Landed spring chinook will be sampled at a minimum 20% rate at premises of fish buyers.
- ❖ Biological data, including coded-wire tags, will be collected to determine spring chinook stock composition.

Landings

- ❖ Staff will contact fish buyers the day following each fishing period regarding their purchases of spring chinook and sturgeon.

Calculation of Impact Rates

Spring chinook

- ❖ It is assumed that wild spring chinook are caught in the same proportion as in the total return.
- ❖ Landed catch of chinook is expanded to total numbers of chinook handled based on the ratio of marked:unmarked chinook observed in the fishery by the onboard monitors.
- ❖ Calculation of upriver spring chinook catch will be based on Visual Stock Identification methodology of the landed catch and confirmed with coded-wire tag results, applied to the unmarked releases.
- ❖ For upriver and Willamette wild spring chinook, impacts are calculated based on the following formula:
$$(\text{Number of upriver spring chinook handled} * \text{mortality rate}) / \text{upriver run size}$$

Steelhead

- ❖ Each day of the fishery will be monitored for numbers of steelhead and spring chinook handled, including marked and unmarked numbers. The ratio of steelhead observed versus the number of marked spring chinook observed in the fishery will be applied to the number of spring chinook that are landed to estimate total number of steelhead handled in the fishery.
- ❖ Monitoring data and landing information will be used to calculate impacts to wild winter steelhead, based on the projected run size of 15,500 fish and the assumptions of 5%-25% wild summer steelhead and 3.5% unmarked hatchery steelhead in the catch. Summer steelhead are assumed to range from 5% of the catch in February to 25% of the catch in late March.
- ❖ For wild winter steelhead, impacts are calculated based on the following formula:
$$\text{Number of wild winter steelhead mortalities} / \text{wild winter steelhead run size}$$

In-season Fishery Management Information

- ❖ Landings and monitoring results will be posted on the ODFW web site.
- ❖ Impact totals, as they become available, will be reported on the website and in the Joint Staff Fact Sheets.
- ❖ Joint Staff Fact Sheets will be produced prior to each Compact hearing and will be posted on the web site when completed.

Oregon Department of Fish and Wildlife
Washington Department of Fish and Wildlife
February 18, 2003